

AMENDMENTS TO THE CLAIMS

Claims 1-10 (Canceled)

11. (New) A process for recovering at least one polymer in solution in a solvent which comprises precipitating by means of a non-solvent introduced gradually into the solution to form the precipitation medium, wherein :

- in the course of the introduction of the non-solvent into the precipitation medium, there is first a phase separation (into a continuous phase rich in solvent, in which the polymer is dissolved, and into a disperse phase, consisting of droplets rich in non-solvent) and then there is a phase inversion (the continuous phase then becoming the phase rich in non-solvent, and the disperse phase becoming the phase rich in solvent containing the dissolved polymer)
- the non-solvent is initially introduced into the precipitation medium in liquid form only and in a quantity (Q') which is not zero but is less than the quantity (Q) required to bring about the phase inversion, and is subsequently introduced into the precipitation medium at least partly in vapour form.

12. (New) The process according to claim 11, wherein the polymer is PVC, the solvent is MEK (methyl ethyl ketone) and the non-solvent is water.

13. (New) The process according to claim 11, wherein the quantity Q' is greater than or equal to 50 % (by volume) of the quantity Q.

14. (New) The process according to claim 11, wherein the introduction time of the quantity Q' into the precipitation medium is greater than or equal to 10 minutes.

15. (New) The process according to claim 11, wherein all the non-solvent introduced into the precipitation medium after the quantity Q' has been introduced into it is in vapor form.

16. (New) The process according to claim 1, wherein the solvent and the non-solvent form an azeotrope and the total quantity of non-solvent introduced in vapor form is sufficient to allow

the azeotropic distillation of the solvent.

17. (New) The process according to claim 11, wherein the precipitation medium comprises two different dispersants of which one has a greater affinity for the non-solvent (dispersant I) and the other has a greater affinity for the solvent (dispersant II).

18. (New) The process according to claim 16, wherein the precipitation medium comprises two different dispersants of which one has a greater affinity for the non-solvent (dispersant I) and the other has a greater affinity for the solvent (dispersant II).

19. (New) A process for recycling at least one article based on at least one polymer which comprises:

- a) optionally shredding the article into fragments with an average size of 1 cm to 50 cm,
- b) contacting the article or the article fragments with a solvent able to dissolve the polymer and
- c) recovering the polymer in solution using a process according to claim 1.

20. (New) The process of recycling according to claim 19, which is a closed loop process in which the solvent and the non-solvent are regenerated at least in part by decantation, and wherein a phase separation agent is present at least in part during the said decantation but is substantially absent during the precipitation of the polymer.

21. (New) The process according to claim 20, wherein the phase separation agent has a greater affinity for the solvent than for the non-solvent and is substantially removed from the regenerated solvent before the polymer is dissolved.